



# TIPI

## Low voltage feeder pillars for public distribution networks

MV/LV distribution  
substations



TIPI 4-500

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TIPI 8-1200

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### The solution for

- MV/LV public distribution substations

### Strong points

- Improved safety
- Simple optimised operation
- Design & robustness
- Manufacturer warranty

### Compliance with standards

- HN 63-R-61 2002 2<sup>nd</sup> edition
- IEC 60947-3

### Customised solutions

- Solution adapted to your requirements, IEC EN 61439



Please ask us for further details.  
See page 8.

### SOCOMECC, partner of



### Smart MV/LV substation

- LV grid monitoring innovations



See page 20.

## Function

TIPI low voltage feeder pillars are installed bottom of the transformers in MV/LV public distribution substations.

At the level of the LV network's incomers, they assure general on-load breaking or making and the distribution on 4 to 8 feeders protected by fuse disconnect switches.

Additional functions provide new advantages for:

- Better awareness of the requirements for power supply continuity and the safety of property and persons.
- Preparing the 'increased intelligence' of substations; a measurement unit can be installed directly on the panel, for example for monitoring transformer data.

## Advantages

### Improved safety

- The IP2X total insulation of the pillar protects operators who may be in proximity to the pillar or performing maintenance procedures.
- The top short-circuiting device assures the short-circuiting and earthing of the transformer LV input.
- The top and bottom voltage sockets enable operators to carry out EST (electrical safety testing) procedures quickly and safely.
- Temperature rises are limited to 65°C as specified by EDF; these are stricter values than those stipulated in the IEC standard (70°C).

### Simple optimised operation

- A quick-connection interface allows the safe connection of an external emergency or maintenance power source.
- Feeders are fitted with terminals with self-snapping fuse screws to ensure the tightening torque.

- A provisional feeder is provided for temporary installations such as building sites, fun fairs, etc.
- The power supply for internal circuits and lighting is provided directly by the pillar.

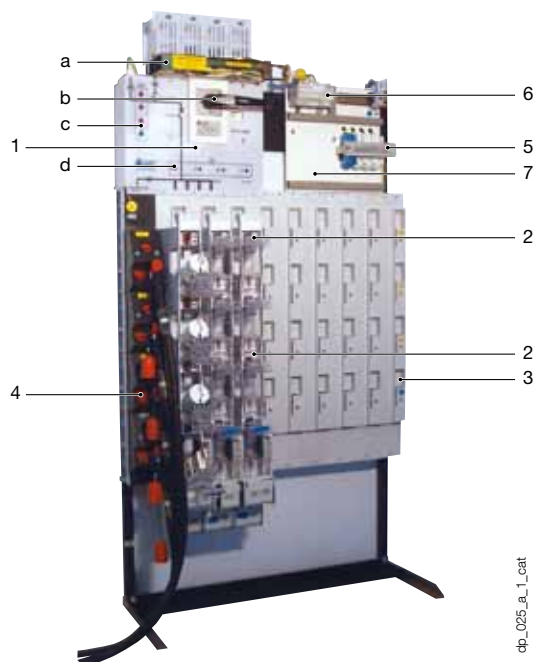
### Design & robustness

With its sleek design and smooth front, the appearance of the TIPI feeder pillar improves safety with large thermoset insulating fittings. Thanks to its rigidity, this excellent insulation material provides much greater robustness.

### Manufacturer warranty

The pillar fully complies with HN 63-S-61 specifications, 2<sup>nd</sup> edition, and is ERDF approved. Our quality assurance procedures ensure reliability: individual tests for each pillar, traceability, comprehensive sampling tests, etc.

## Composition



1. Incoming unit
  - a. Top short-circuiting device
  - b. Load break switch
  - c. Top EST (electrical safety testing) sockets
  - d. Bottom EST (electrical safety testing) sockets
2. Monobloc fuse feeder
3. Temporary feeder, identified by colour label
4. Rapid connection supply device, providing a secure connection from an external power source for emergency or maintenance procedures
5. ACG 60 A relay for public lighting supply
6. 32 A power supply for internal circuits
7. Option: measurement and monitoring solutions. See page 21.

### 1. Incoming unit

The TIPI feeder pillars are equipped with SIRCO\* 4-pole AC22B load break switches with fully visible breaking. As per IEC 60947-3, they provide on-load breaking and making, i.e. electrical isolating.

A grounding neutral lug inside the device earths the installation's neutral when the switch is opened.

For standard models, top cable lugs are designed to take 240 mm<sup>2</sup> rigid cables (neutral possible for 150 mm<sup>2</sup> cables): 500 A with 1 cable, 1200 A with 3 cables, 1800 A with 4 cables.

Other connections on request.

\*Please see the SOCOMEC general catalogue

### 6. Relay for power supply of internal circuits

The relay is fitted with:

- 1 outgoing unit for 10 A lighting of the substation.
- 1 16 A socket.
- 1 neutral terminal.
- Optional connection cables chute and outgoing units for power supply:
  - a LV power-line communication (PLC) concentrator device (2 A),
  - an I.T.I. enclosure or a MV fault detection device (2 A).

## References

### TUPI

Type	Rating (A)	Max. number of feeders	MV/LV transformers	Type of substation	ERDF N°	Reference
TUPI 4-500	500	4 + 1 <sup>(1)</sup>	Up to 250 kVA	PSS <sup>(2)</sup>	69 82 150	8057 0001
TUPI 8-1200	1200	8 + 1 <sup>(1)</sup>	630 kVA	PAC <sup>(2)</sup>	69 82 156	8057 0003
TUPI 8-1800	1800	8 + 1 <sup>(1)</sup>	1000 kVA	PAC <sup>(2)</sup>	69 82 158	8057 0004
TUPI 8-1200 (lowered)	1200	8 1 <sup>(1)</sup>	630 kVA	PUIE <sup>(2)</sup>	-	On request

(1) +1 'provisional' feeder reserved for connecting temporary installations (building sites, fun fairs, etc.)

(2) PSS (simplified substation on floor), PAC (substation with gangway), PUIE (urban substation integrated in the environment).

Please contact us for any requests concerning TIPI incoming units (load break switch and shorting kit).

# TIPI

Low voltage feeder pillars  
for public distribution networks

## Accessories

### Type 1 feeder unit - 400 A

#### Use

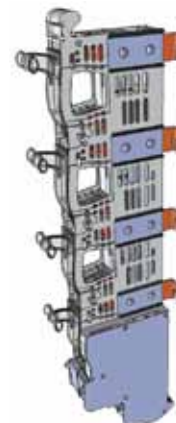
From the main busbars of the pillar, these feeders provide the power supply and electrical protection of the low voltage distribution network (underground or a combination of overhead & underground). They are intended to be connected to the pillar permanently.

These ergonomic feeders are easy to manoeuvre thanks to the fuse support handles. The transparent handles make for easy reading of the ratings on the fuses that have been installed. To ensure the IP2X level of protection, it is recommended to use Size 2 HN fuses and insulated neutral wiring bars, see page 102.

The terminal lugs are fitted with self-snapping fuse screws, which ensures the tightening torque without using a special tool.

The terminals are designed to take rigid aluminium multicore cables insulated with cross-linked polyethylene (PEX):

- 3 x 240 mm<sup>2</sup> + 1 x 95 mm<sup>2</sup>.
- 3 x 150 mm<sup>2</sup> + 1 x 150 mm<sup>2</sup>.
- 3 x 150 mm<sup>2</sup> + 1 x 70 mm<sup>2</sup>.
- 3 x 95 mm<sup>2</sup> + 1 x 50 mm<sup>2</sup>.



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### Type 1 provisional feeder unit - 400 A

#### Use

The provisional feeder is used for temporary installations such as building sites, fun fairs, etc. Similar to the standard feeder unit, it also allows the connection of overhead twisted cables.

Type	Packaging	ERDF N°	Reference
Type 1 feeder unit - 400 A	1	69 82 200	8061 0001
Provisional type 1 feeder unit - 400 A	1	69 82 202	8061 0002

#### Fastenings to pillar base

Type	Packaging	ERDF N°	Reference
Fastening to 4-feeder pillar base	1	69 82 250	8061 0007
Fastening to 8-feeder pillar base	1	69 82 252	8061 0008

### Insulated operating key

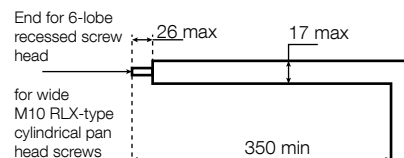
#### Use

Live tightening or unscrewing of feeder fastening screws.

One key per pillar is recommended.

Compliant with IEC 60900.

Type	Packaging	ERDF N°	Reference
Insulated operating key	1	69 82 820	8061 0009



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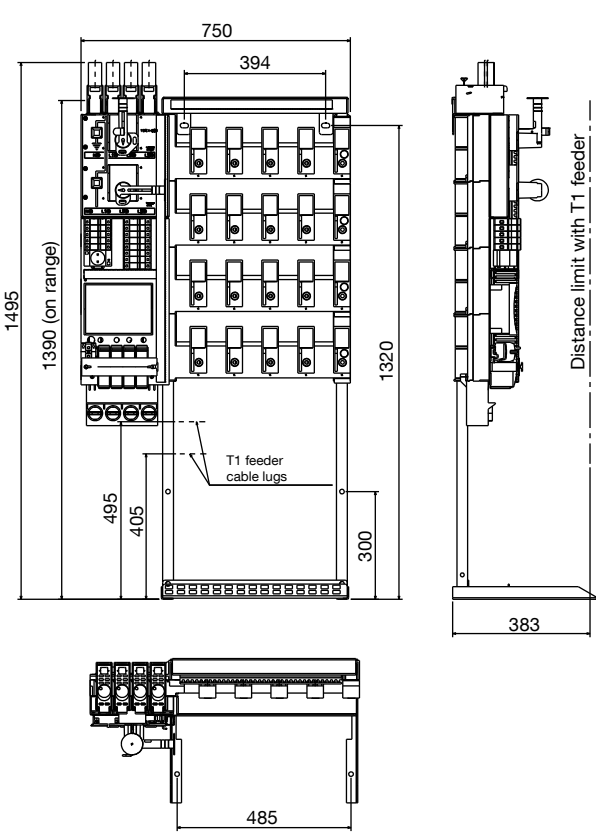
Characteristics

	TIPI 4-500	TIPI 8-1200	TIPI 8-1800	Type 1 feeder
Rated operational voltage (V)	400	400	400	400
Rated voltage at 50 Hz/1 min (earthed) (kV)	10	10	10	10
Rated voltage at 50 Hz/1 min between poles (kV)	2	2	2	2
Rated impulse withstand earthing voltage (kV)	20	20	20	20
Rated impulse withstand voltage between poles (kV)	6	6	6	6
Incoming unit and busbar rated current (A)	500	1200	1800	400
Short-time withstand current 0.5 s (kA)	10	25	32	32
Peak short-time withstand current (kA)	17	52, 5	67.2	67.2

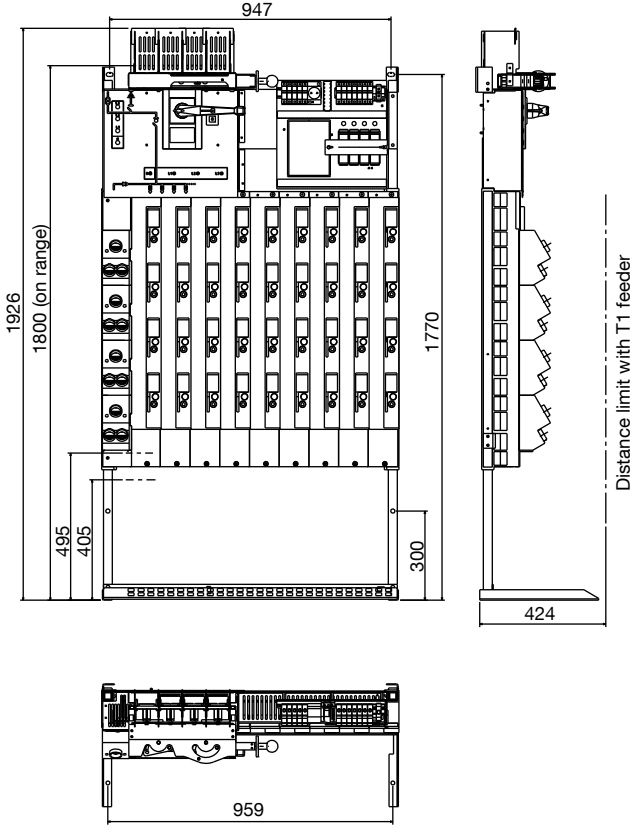
Dimensions

TIPI 4-500 : 1400 x 750 x 400 mm

TIPI 8-1200 / 8-1800 : 1800 x 1000 x 400 mm



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